

Work Order ID 55555

Page 1

January 21, 2010 9:06:28 AM

Item ID: D212-664-107TRN

Accept



Setup Start



Revision ID:

Item Name: Crosstube Turning Detail

Stop



Start Date: 1/21/10 Start Qty: 1.00



Cust Item ID:

Required Date: 1/28/10 Req'd Qty: 1.00



Customer:

Reference:

Approvals:

Process Plan:

Date: 10-1-21

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D212-664-147

Rev B

0.00

100



MORI SEIKI CNC LATHE LARGE

Mori Seiki

Memo

0.00

a.m 10-01-28①

Mori Seiki CNC Lathe Large

1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA705
 2-Turn first side as per Folio FA113
 3-File down transition lines smooth.

110



QC1- Inspect dimensions to dimension sheet

0.00

QC

Memo

0.00

a.m 10-01-28⑥

Quality Control

120



MORI SEIKI CNC LATHE LARGE

0.00

Mori Seiki

Memo

0.00

Mori Seiki CNC Lathe Large

1-Turn second side as per Folio FA705
 2-File down transition lines smooth.
 3- Remove plugs and sand

a.m 10-01-28①

W/O:		WORK ORDER CHANGES					
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Date: _____

Tooling: _____

Date: _____

Run Start



QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

QC1- Inspect dimensions to dimension sheet

0.00



QC

Memo

0.00

a.m 10 - 01 - 28 0

Quality Control

140

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

1 - - - Avn 10-1-28

150

Crosstubes Chemical Conversion

0.00



HandFXtube

Memo

0.00

Hand Finishing Crosstubes

1 - - - Avn 10-2-1

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Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursDraw
NumberDraw
Rev.Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

10/21

170

Packaging

0.00



Packaging

Memo

0.00

Packaging

Identify and stock in kanban rack

Location: X-108E CEC 2

1 - - Aw 10-02-01

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/02/02 01

MF 10-02-01

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NOTE: Date & initial all entries

Picklist Print

January 21, 2010 9:06:32 AM

Page 1

Work Order ID: 55555



Parent Item: D212-664-107TRN



Parent Item Name: Crosstube Turning Detail

Start Date: 1/21/10

Required Date: 1/28/10

Comments: IPP Rev:A New Issue 08-03-06 DD Verified by:cc
IPP Rev B Removed polish 08.04.02 EC verified: DD

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D6019-128		Manufactured	No			110	Each	22.0000	1.0000		Q.M. 10-01-28(0)	

Crosstube Material

Warehouse Loc Qty Loc Code

Location

Main Warehouse

LG	22	
29369	1	
32310	7	
50893	14	

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NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	55555
Description: Crosstube Assembly (205/212/412 Low Fwd)	Part Number:	D212-664-147
Inspection Dwg: D212-664-147 Rev: A <i>B</i>		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	0.313	+/-0.010	0.313	/		
	2.360	+0.005/-0.000	2.362	/		
	2.360	+0.005/-0.000	2.362	/		
	2.366	+0.005/-0.000	2.368	/		
	2.473	+0.005/-0.000	2.475	/		
	2.573	+0.005/-0.000	2.575	/		
	2.673	+0.005/-0.000	2.675	/		
	2.750	+0.005/-0.000	2.752	/		
	2.750	+0.005/-0.000	2.753	/		
SIDE B	0.313	+/-0.010	0.313	/		
	2.360	+0.005/-0.000	2.362	/		
	2.360	+0.005/-0.000	2.362	/		
	2.366	+0.005/-0.000	2.368	/		
	2.473	+0.005/-0.000	2.475	/		
	2.573	+0.005/-0.000	2.575	/		
	2.673	+0.005/-0.000	2.675	/		
	2.750	+0.005/-0.000	2.752	/		
	2.750	+0.005/-0.000	2.753	/		
<i>0.126.5328</i>						
Measured by:	<i>A.M</i>	Audited by:	<i>AWW</i>	Prototype Approval:	N/A	
Date:	<i>10-01-28</i>	Date:	<i>10-1-28</i>	Date:	N/A	

Rev	Date	Change	Revised by	Approved
A	08.11.07	New Issue	KJ/EC <i>✓</i>	<i>AS</i>

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NOTE: Date & initial all entries

B

Item	Qty	Qty	Part Number	Description
	-147	-147B		
1	X		D212-664-147	CROSSTUBE ASSEMBLY (205/212/412 LOW FWD)
2		X	D212-664-147B	CROSSTUBE ASSEMBLY (214 LOW FWD)
3	1	1	D6019-128	CROSSTUBE
4	2	2	D2893-1	SUPPORT
5	4	4	D3595-063-450	RUBBER CUSHION
6	2	2	D3659-1	CUFF
7	4	4	MS21920-25	CLAMP (OR MS21920-26)
8	44	44	CR3212-4-06	RIVET (OR M7885/3-4-06)
9	A/R	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)
10	A/R	A/R	SIKAFLEX-241/-291	SEALANT (OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT)

GENERAL NOTES:

- 1) MATERIAL: MANUFACTURED FROM D6019-128
FINISHED LENGTH = 126.528±0.020 (BEFORE BENDING/TRIMMING)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 3) TOLERANCES ARE PER DART QSI 016 UNLESS OTHERWISE NOTED.
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED.
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- 6) IDENTIFICATION: SCRIBE DART PART NUMBER "D212-664-XXX" AND BATCH NUMBER ON INSIDE OF CUDD USING VIBRATING STYLUS.
- 7) WEIGHT: D212-664-147 = 24.2 lbs (PER IIN-D212-664)
D212-664-147B = 24.2 lbs (PER IIN-D212-664)
- 8) PART IS SYMMETRIC ABOUT CENTERLINE.
- 9) WHEN MACHINING TAPER, RUN CUTTER OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 8 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D., EXCEPT UP TO 10% IS ALLOWED IN AREA NOTED.
- 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 12) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 TO THE SURFACE OF D2893-1 THAT WILL BE IN CONTACT WITH THE CROSSTUBE PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 13) INSTALL MS21920-25 CLAMPS (OR -26) WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2893-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED OUT AFTER TORQUING.
- 16) INSTALL D3659-1 CUFF AFTER CHEMICAL CONVERSION COAT BUT BEFORE PAINT, WITH A LAYER OF SIKAFLEX-241/-291 OR PROSEAL 890 OR MIL-S-8802 CLASS B2 SEALANT BETWEEN CUDD AND CROSSTUBE. SEAL EDGE OF CUDD TO ENSURE NO GAPS.
- 17) TOUCH-UP HOLES WITH CHEMICAL CONVERSION COAT.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 35355
PS 10-1-21

RELEASED 2009-10-29

B	REVISE GENERAL NOTES/PART LIST; UPDATE TO CURRENT STANDARDS; ADD -147B (ZN C4-2, D4-2)	RF	09.09.30
A	NEW ISSUE	CP	07.07.07
REV.	DESCRIPTION		
DESIGN	9	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	9	DRAWING NO.	REV. B
MFG. APPR.	DA	D212-664-147	SHEET 1 OF 4
APPROVED	NP	TITLE	SCALE
DE APPR.	-	CROSSTUBE (205/212/412 LOW FWD)	NTS
DATE	09.09.30	COPYRIGHT © 2007 BY DART AEROSPACE LTD. THIS DOCUMENT IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE USED FOR THE PURPOSE FOR WHICH IT WAS PROVIDED AND IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

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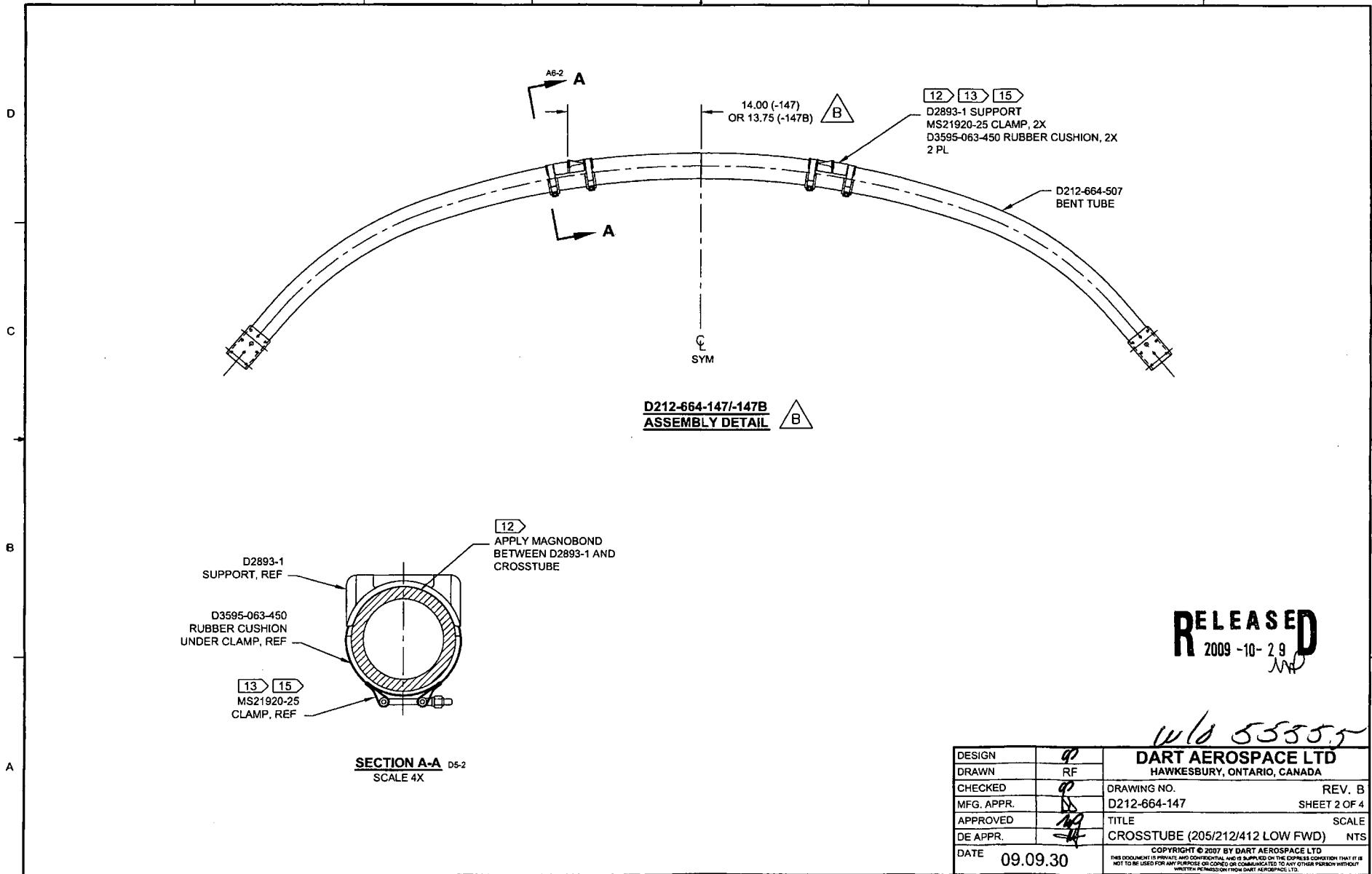
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8 7 6 5 4 3 2 1



8 7 6 5 4 3 2 1

D

C

B

A

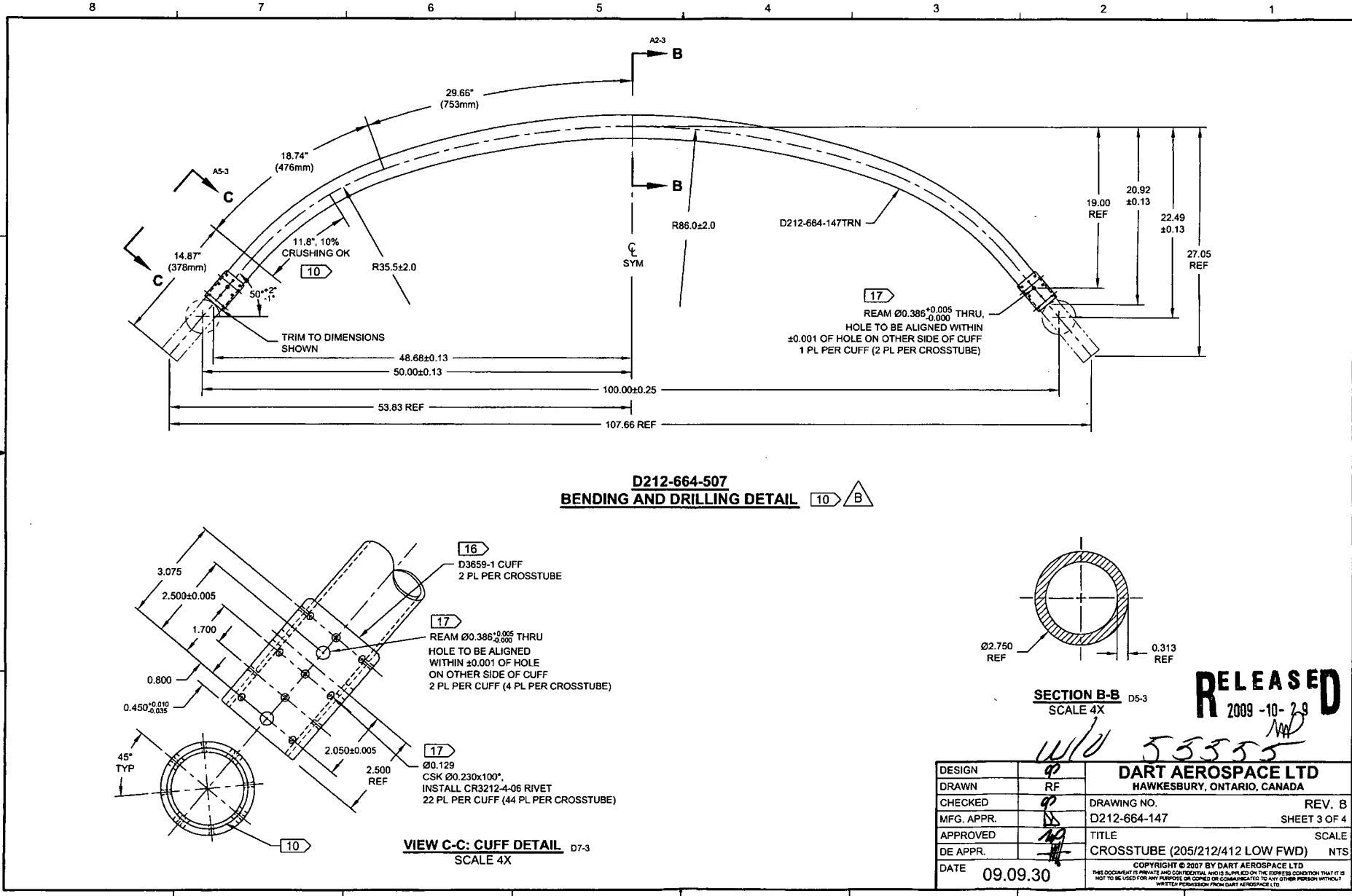
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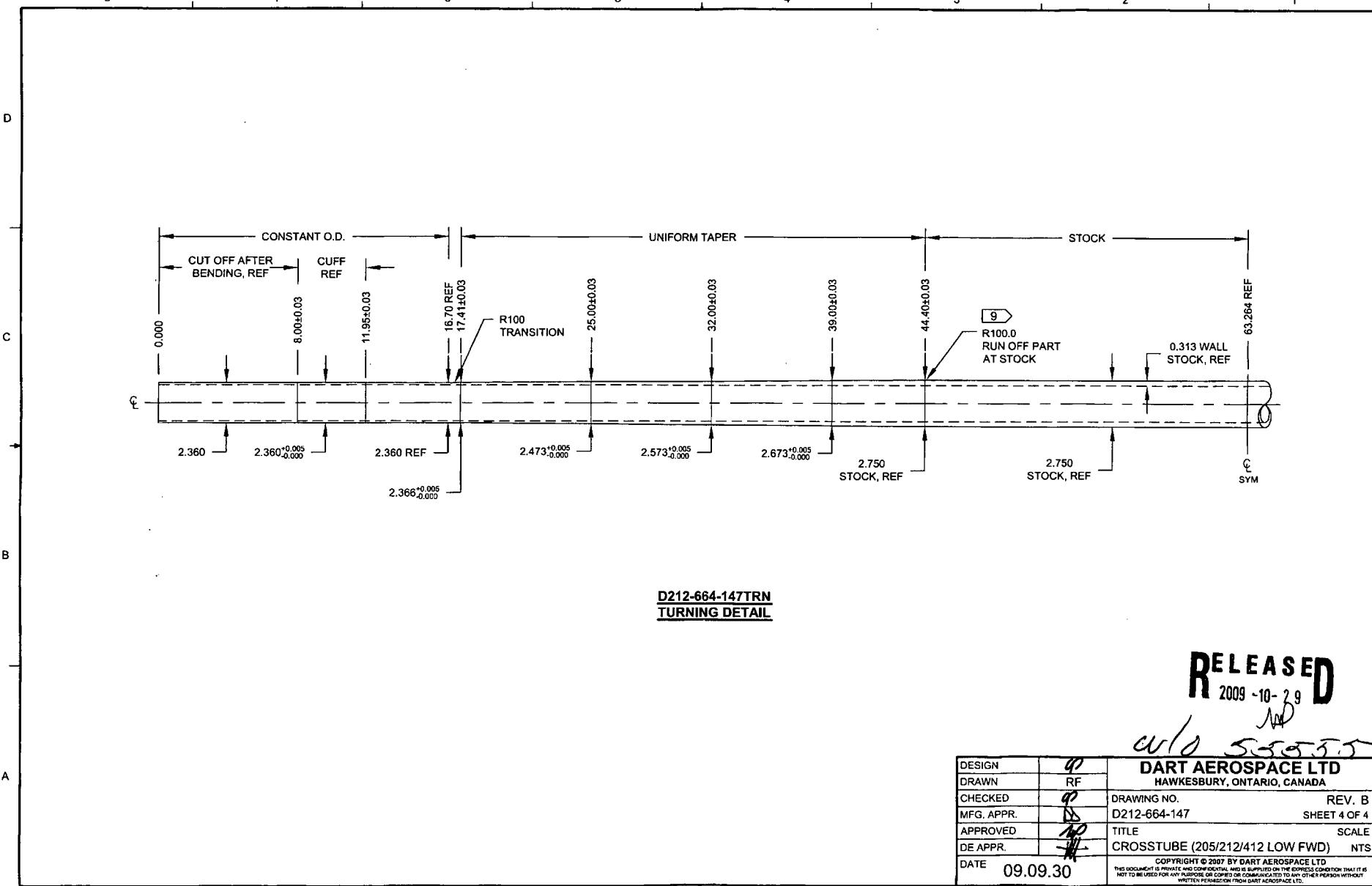
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